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XANTHISMA PSEUDORESTIFORME (ASTERACEAE: ASTEREAE), A NEW GYPSOPHILE FROM NUEVO LEÓN, MEXICO

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ABSTRACT

A new gypsophilic taxon, **Xanthisma pseudorestiforme** B.L. Turner, **sp. nov.**, is described from Nuevo León, Mexico. It is closely related to the well-known gypsophile *X. restiforme* from the area of Cuatro Ciénegas in central Coahuila, hence the name. A photograph of the type is provided, along with photos of the habitat, plants in vivo, and a map showing the distribution of each species.
KEY WORDS: Asteraceae, *Xanthisma*, gypsum, Mexico, Nuevo León, Coahuila

Some 30 years ago I described a most remarkable species, *Machaeranthera restiformis* B.L. Turner — now identified as *Xanthisma restiforme* (B.L. Turner) Hartman & Morgan — from gypsum soils near Cuatro Ciénegas, Mexico (Turner 1973), one of the highlights of my many years of fieldwork in Mexico. The novelty was named for its rope-like stems, nothing else in the genus having such an appearance, until the following:

Xanthisma pseudorestiforme B.L. Turner, sp. nov. Figs. 1–5. **TYPE: MEXICO. Nuevo León.** Mpio. Mina, N of Molina, gypsum hillside, 854 m, 26.02219° N, 100.422211° W, shrub 20 cm, widely scattered plants, 4 Sep 2005, *Hinton et al. 28398* (holotype: TEX).

Xanthismi restiformi (B.L. Turner) Hartman & Morgan similis sed differt caulibus ac foliis dense hispidulis (vs. gossypinis), capitulis minoribus (4–5 mm in altitudine vs. 6–8 mm), et bracteis involucralibus setas albas apicales carentibus.

Suffruticose or subshrubs, intricately branched and densely hispidulous, 30 cm tall or less from a tough, woody taproot, presumably forming deep rhizomes. **Leaves** simple, short, ovate blades 2–4 mm long, 2–3 mm wide, sessile, densely hipidulous, ciliate with white waxy trichomes that terminate ill-defined serrations and the apex. **Heads** solitary, discoid, sessile or nearly so. **Involucres** campanulate, the bracts 2–5 mm long in 3–5 series, distinct white apical setaceous apiculae absent. **Receptacles** ca 5 mm across, alveolate, adorned with small scales and short hairs. **Florets** yellow, 30–60 per head; corollas ca 4 mm long, 5-lobed, the lobes acute, ca 1 mm long. **Style branches** flat with densely pubescent, acute appendages. **Achenes** prismatic, ca 1.8 mm long, densely white-pubescent; pappus of numerous stiff bristles ca 4 mm long.

Additional collections examined: **MEXICO. Nuevo León.** Mpio. Mina: NE of Carricitos, gypsum hillside, 935 m, 26.0136° N, 100.46592° W, 23 Jul 2007, *Hinton et al. 28633* (TEX); off Monterrey-Monclova Hwy 53, 6 mi N of Rancho Las Estacas on one of several roads leading N from headquarters — this road passes two watering holes and ends 7 mi N of headquarters, near second water hole on gypsum, 650 m, 26° 25' N, 100° 50' W, 18 Oct 1993, *Patterson 7436* (TEX).

The new species resembles *Xanthisma restiforme* (B.L. Turner) Hartman & Morgan but differs in its densely hispidulous stems and leaves (vs cottony-pubescent), smaller heads (4–5 mm high vs 6–8 mm), and involucral bracts without apical white bristles. The novelty indeed resembles *X. restiforme* so much in habit so that I have coined its name after the fact. No doubt the two taxa are

derived from some ancient gypseous rhizomatous population, this giving rise to the two remarkable populations known today — one in Coahuila, the other in Nuevo León (Fig.1). The locality for *X. pseudorestiforme* also is the home of two other recently described gypsophilous endemics, *Erigeron heleniae* Nesom (Nesom 2007) and *Cryptantha geohintonii* B.L. Turner (Turner 2008).

Xanthisma pseudorestiforme first came to my attention in 1993 by a collection of Thomas F. Patterson (cited above). I annotated it as a possible new species at the time, hoping that additional specimens might be obtained by others, and such has been provided by my good friend George Hinton, who obtained two more collections, including the type and a color photograph of the same. In his covering letter (email), George commented:

> On Sunday I went to a gypsum outcrop near Monterrey, and as I got out of the truck saw a real nice Asteraceae, a dominant species. I thought that if no one had been collecting on that gypsum (most likely) it would surely be undescribed. Then yesterday night I went to the PRC website [Plant Resources Center, TEX] and found that you had collected it on gypsum near Cuatro Ciénegas — over 100 miles to the NW of the Nuevo León site and 30 years earlier!

George's intuition was correct, of course, but his web site examination could not have picked up the differences that distinguish between the species concerned, nor did he know that I had squirreled away the single sheet of the potential novelty at my disposal, as noted above.

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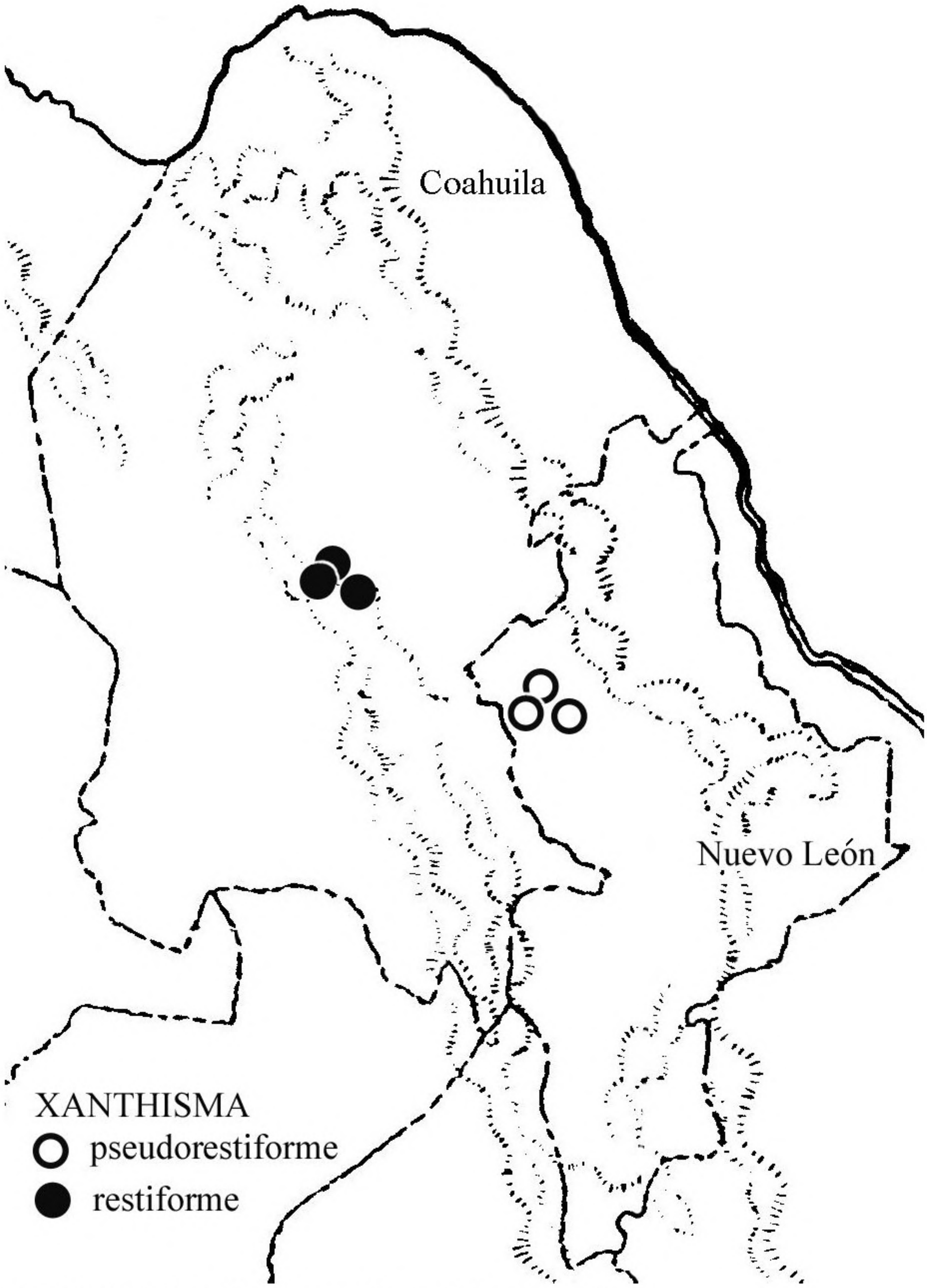

Figure 1. Distribution of *Xanthisma restiforme* and *X. pseudorestiforme*.

Figure 2. *Xanthisma pseudorestiforme* (holotype, TEX).

Figure 3. *Xanthisma pseudorestiforme*. Two adjacent shrubs at type locality.

Figure 4. *Xanthisma pseudorestiforme*. Branches and head.

Figure 5. *Xanthisma pseudorestiforme*. Scattered shrubs at type locality.